









# Work Order ID 61814

Tuesday, September 07, 2010 12:43:57 PM


Page 1


Item ID:	D4103-1	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step / Handle					
Start Date:	9/7/2010	Start Qty: 8.00		Cust Item ID:		
Required Date:	10/13/2010	Req'd Qty: 8.00		Customer:		
Reference:						


Approvals:	Process Plan:		Date:	10-9-07	Tooling:		Date:		Run	Start	
	QC:		Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4103	A

100	Cut blanks as per folio	0.00							
									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	6.200" long			SL 10/09/23		8	8		

110		0.00							
									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	Mill as per dwg and Folio FA937			SL 10/09/28		8	8		
	DEBURR								

120	QC2- Inspect parts off machine FAI/FAIB	0.00							
									
QC	Memo	0.00							
Quality Control				SL 10/09/28		8	8		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



**NOTE:** Date & initial all entries




# Work Order ID 61814

Tuesday, September 07, 2010 12:43:57 PM

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Item ID:	D4103-1	Accept		Setup	Start	
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Required Date:	10/13/2010	Req'd Qty:	8.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00		<i>DTP 10/09/28</i>		<i>8</i>	<i>1</i>		
140  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00		<i>10-9-29.</i>		<i>8</i>	<i>1</i>		
150  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00		<i>10/09/29</i>		<i>8</i>	<i>1</i>		

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**NOTE:** Date & initial all entries

**Work Order ID 61814**

Tuesday, September 07, 2010 12:43:57 PM

Page 3

Item ID: D4103-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Step / Handle

Start Date: 9/7/2010 Start Qty: 8.00

Cust Item ID:

Required Date: 10/13/2010 Req'd Qty: 8.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

PPP  
61807

0.00

Packaging

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

\_\_\_\_\_ 10/9/29 (P)

10/09/30

CWF

10-9-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, September 07, 2010 12:44:01 PM

Page 1

Work Order ID: 61814



Parent Item: D4103-1



Parent Item Name: Step / Handle

Start Date: 9/7/2010

Required Date: 10/13/2010

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP REV: A NEW ISSUE 10-07-01 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B2.000X03.50 0		Purchased	No			100	f	17.6427	0.52	4.378947			



6061-T6 Bar 2.00 x 3.50



SL 10/09/23

Location

MAT09

112764

Loc Qty

17.6427

17.6427

Loc Code

4.4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 61814
<b>Description:</b> Step / Handle		<b>Part Number:</b> D4103-1
<b>Inspection Dwg:</b> D4103 <b>Rev:</b> A		<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.93	$\pm 0.030$	2.930	✓		Vern	ML-7
.37	$\pm 0.030$	.371	✓		"	"
.83	$\pm 0.030$	.828	✓		"	"
Ø.560	$\pm 0.010$	Ø.561	✓		"	"
.06 X 45°	$\pm 0.030$ X $\pm 1/2^\circ$	.067 X 45°	✓		"	"
.26	$\pm 0.030$	.270	✓		"	"
.33	$\pm 0.030$	.335	✓		"	"
R.06	$\pm 0.030$	R.060	✓		Radius gage	REF
1.78	$\pm 0.030$	1.784	✓		Vern	ML-7
.45	$\pm 0.030$	.445	✓		"	"
.33	$\pm 0.030$	.335	✓		"	"
.75	$\pm 0.030$	.740	✓		"	"
1.66	$\pm 0.030$	1.650	✓		"	"
.80	$\pm 0.030$	.770	✓		"	"
1.07	$\pm 0.030$	1.070	✓		H-gage	31006
3.85	$\pm 0.030$	3.849	✓		Vern	ML-7
.03 X 45°	$\pm 0.030$ X $\pm 1/2^\circ$	.040 X 45°	✓		"	"
.31	$\pm 0.030$	.310	✓		"	"
.28	$\pm 0.030$	.280	✓		"	"
.030 Deep	$\pm 0.010$	.030	✓		"	"
6.00	$\pm 0.030$	6.000	✓		"	"
R.27	$\pm 0.030$	R.270	✓		Radius gage	REF
.56	$\pm 0.030$	.552	✓		Vern	ML-7

<b>Measured by:</b> <i>amk</i>	<b>Audited by:</b> <i>DD</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 10/09/27	<b>Date:</b> 10/09/28	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order: 61814
Description: Step / Handle		Part Number: D4103-1
Inspection Dwg: D4103 Rev: A		Page 1 of 2

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

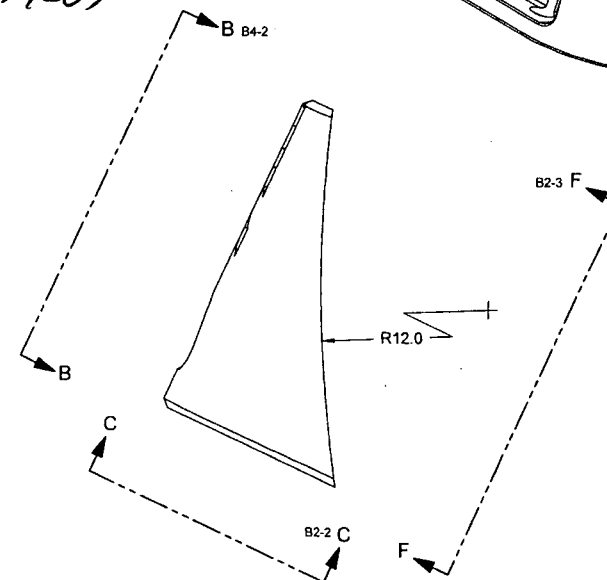
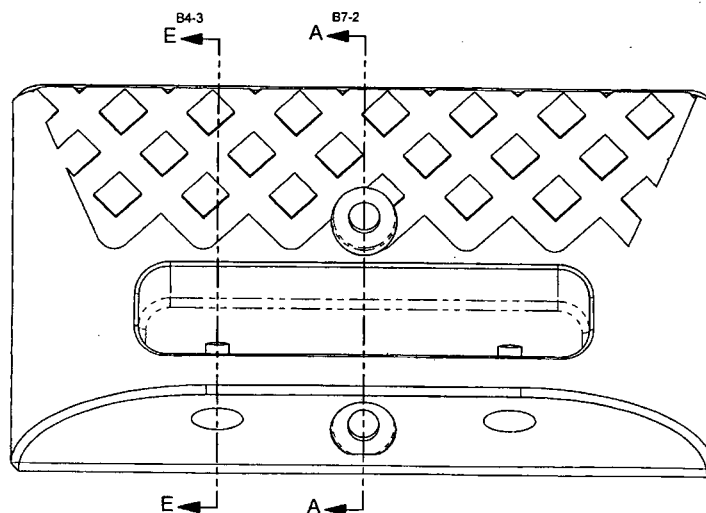
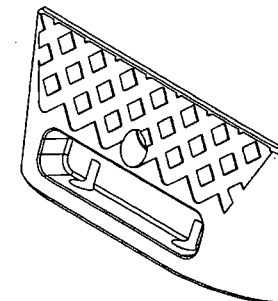
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.74	$\pm .030$	1.747	—		H-gage	31006
2.50	$\pm .030$	2.498	—		vern	ML-7
$\varnothing .438$	$\pm .006$	$\varnothing .440$	—		"	"
$\varnothing .216$	$\pm .006$	$\varnothing .270$	—		"	"
.96	$\pm .030$	.953	—		H-gage	31006
.26	$\pm .030$	.254	—		<del>vern</del> vern	ML-8
.25	$\pm .030$	.245	—		vern	ML-7
2.25	$\pm .030$	2.248	—		"	"
1.00	$\pm .030$	1.000	—		"	"
.20	$\pm .030$	.197	—		"	"
.98	$\pm .030$	.980	—		"	"
.32	$\pm .030$	.318	—		"	"
1.25	$\pm .030$	1.248	—		"	"
R.19	$\pm .030$	R.190	—		Radius gage	REF

Measured by: <i>mx</i>	Audited by: <i>DA</i>	Prototype Approval:	N/A
Date: 10/09/27	Date: 10/09/28	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

SHOP COPY  
 RETURN TO  
 ENGINEERING  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 96814

*Bf10-9-07*



**D4103-1 STEP/HANDLE**

**NOTES:**

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
 PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)  
 OR ASTM B211 OR ASTM B221
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4103-1" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.81 lbs
- 8) MACHINE 0.28 x 0.31 GRIP 0.030 DEEP AT 45° PATTERN 0.25 APART

**RELEASED**  
 2010-08-23  
*JWP*

A NEW ISSUE		RF	10.05.17
REV.	DESCRIPTION		BY DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	<b>D4103</b>	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>STEP/HANDLE</b>	NTS
DATE	10.05.17	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

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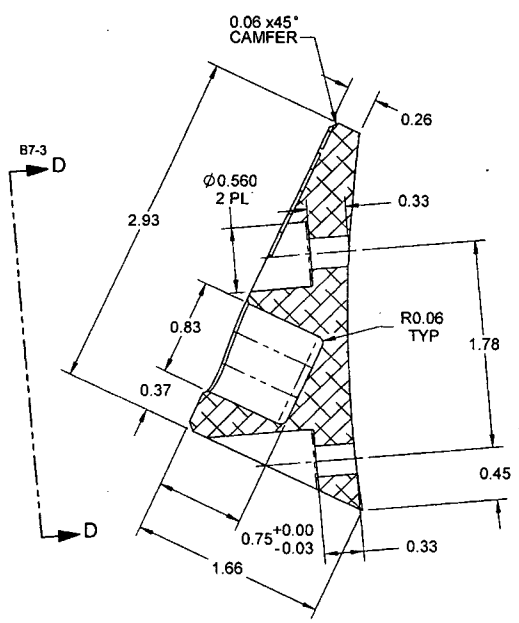
**NOTE:** Date & initial all entries

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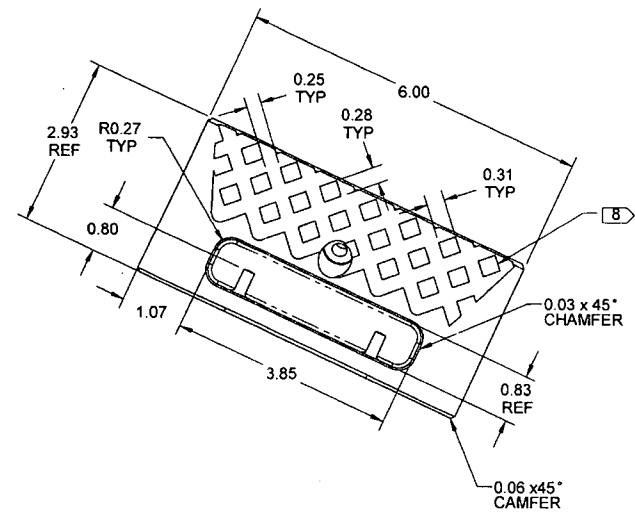
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C  
B  
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A

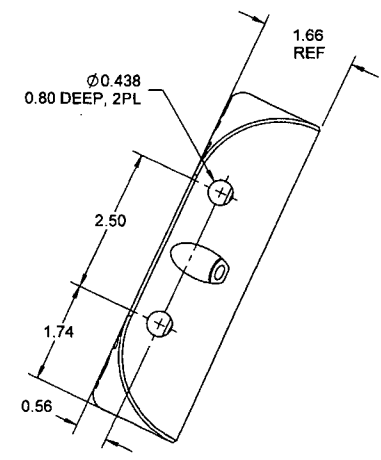
w/b 41814



**SECTION A-A** D6-1



**VIEW B-B** D3-1  
SCALE 0.5X



**VIEW C-C** B2-1  
SCALE 0.5X

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2010-08-23

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DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4103	SHEET 2 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	STEP/HANDLE	NTS
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8 7 6 5 4 3 2 1

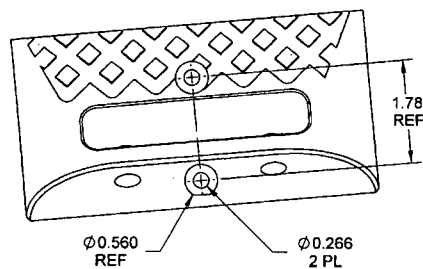
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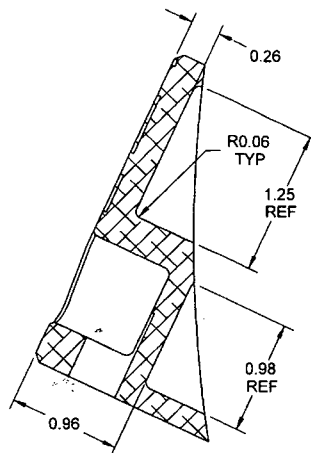
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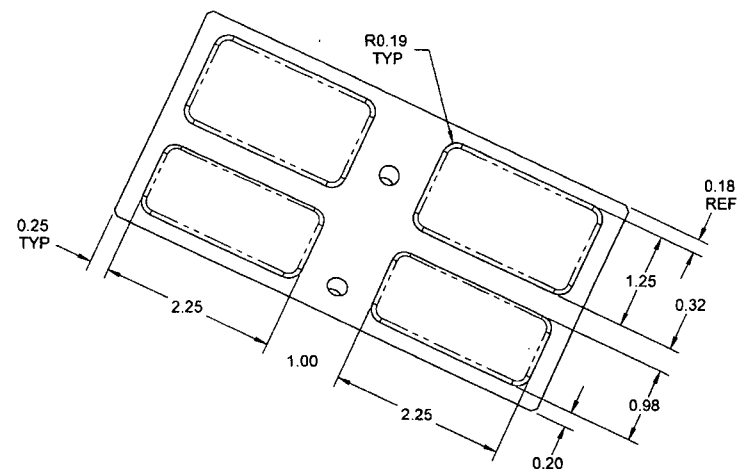
**NOTE:** Date & initial all entries



VIEW D-D C8-2  
SCALE 0.5X



VIEW E-E D7-1



VIEW F-F C1-1

RELEASED  
2010-08-23  
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DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4103	REV. A
MFG. APPR.	<i>[Signature]</i>		SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
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